

Core Content for Assessment Issues and Resolutions

Overall response

The overall response to the proposed clarifications for the *Core Content for Assessment* has been positive. The field responded favorably to the organization of the *Core Content for Assessment* by specific grade levels rather than by grade spans, the reflection of the depth of knowledge and cognitive complexity in the Core Content standards statements, and the organization of the content by “big ideas.” Core Content standards in all disciplines are clarified, more focused for classroom instruction, and adjusted for rigor. Prior to the June KBE meeting, staff will complete an additional check for clarity, development of the content standards across grade levels, a cross content review, and a verification check of the depth of knowledge/cognitive complexity for each content standard.

Issues specific to individual content areas

Mathematics

Issue – Alignment with the American Diploma Project and the Council for Postsecondary Education Placement Policy: Since the last revision of the *Core Content for Assessment*, the American Diploma Project (ADP) report was released and the Kentucky Council for Postsecondary Education (CPE) issued their placement policy that defines the requirements for placement consideration in credit bearing courses at Kentucky’s colleges and universities. In addition, the National Council of Teachers of Mathematics (NCTM) Standards were finalized. As a result of these new policies, standards and reports, agreement of content standards as well as the gaps in Kentucky’s *Core Content for Assessment* had to be defined. Overall, there was far more agreement on the essential content for high school students than there were gaps. The issue was to reach agreement on what content standards are gateway skills for the workplace and placement into credit bearing courses at Kentucky’s colleges and universities that would result in the decrease of students needing remedial mathematics instruction after graduation from high school. An additional issue was at what point are high school students expected to have reached proficiency on this content - 11th grade, 12th grade, or at the completion of three high school courses or a fourth course. Also considered was the amount of instructional time necessary for students to reach the level of proficiency for successful transition. The algebraic concept that evolved as the key issue was the level of complexity of symbolic manipulation, with a focus on rational expressions.

Resolution: A specific Core Content standard related to rational expressions is included in the revised *Core Content for Assessment* to align with the CPE Placement Policy and the ADP. The Mathematics Summit, described in the staff note on the *Core Content for Assessment*, was one discussion forum for reaching relative agreement on the mathematics Core Content standards, including the standard on rational expressions. This Summit brought together faculty from higher education (arts and sciences, education, community colleges, universities), middle and high school teachers, adult education, parents, business, CPE staff, and KDE staff. The teacher content teams also

discussed the high school content issues and agreed to include rational expressions as defined. They did express concern regarding the amount of time it will take to instruct students to a level of proficiency by the time the students take the state KCCT assessment. Although the online survey responses favored not assessing rational expressions on the KCCT, it was agreed that this concept was important enough to include in the *Core Content for Assessment*. On other standards related to symbolic manipulation (e.g., polynomials, function notation, quadratic equations) language was used to clarify the level of complexity expected of students.

At middle and elementary levels there were some content standards either moved to a more appropriate grade level, defined as supporting content rather than state assessed content, or clarified by limiting the content expectation. These adjustments were based on feedback from the field and analysis of national standards and reports.

Reading

Issue - Reporting Categories: Many of the core content standards can apply across genres and are not genre specific. This resulted in repetition of Core Content standards.

Resolution: The layout and emphasis for reading core content is no longer formatted and reported based on the type of reading text (genre-specific). The new *Reading Core Content for Assessment* reporting categories are aligned with the five big ideas for reading, which were adapted from the National Assessment of Educational Progress Standards Framework.

Issue – Assessment of Fluency: Currently fluency standards are not included in the *Core Content for Assessment*. Students who struggle with reading are generally less fluent in reading which in turn impacts their comprehension. Current research in the field of reading and the national focus of Reading First emphasizes fluency as one of the key components for proficient readers P-12. However, fluency is difficult to assess at a state level.

Resolution: Consideration is being given to either inclusion of fluency standards as supporting content or as a future change in the *Program of Studies*. As instructional support materials are developed, fluency examples will be included. Future professional development will incorporate a greater focus on fluency.

Social Studies

Issue - Fifth Grade Content: The social studies focus at the fifth grade level in the *Program of Studies* is a survey of US History from Land Before Columbus through the Twentieth Century. The breadth of the content across the time periods/eras makes it difficult to teach the depth of content. Narrowing the time periods in the *Core Content for Assessment* at fifth grade was considered; however, there was a concern that this would narrow the perspectives of various cultures.

Resolution: The time periods/eras remain in the 5th grade *Core Content for Assessment*; however, they are now specific to targeted historical concepts. For example, in human

movement and settlement in geography, the focus is on individuals and groups that were moving and settling in the United States during the Age of Colonization and Westward Expansion, rather than the War of Independence (culture and conflict). This provides better guidance to teachers about a specific time period and the important concepts to teach within the time period. This adjustment was supported by the responses to the online survey and the teacher work teams.

Science

Issue – Middle School Level: At the middle school level there is a gap in continuity of conceptual ideas in the *Program of Studies*, which impacted the developmental sequence of the conceptual ideas in the *Core Content for Assessment* at the middle school level.

Resolution: At the middle school level, some concepts are included in the revised *Core Content for Assessment*. Prior to finalization of the *Science Core Content for Assessment*, the appropriate developmental continuum will be completed. A future solution is to revise the *Program of Studies* to better align with current national standards and a developmentally appropriate continuum for learning science.

Issue – Rigor of Middle School Level Content: Feedback from the online survey and other teacher advisory groups indicated that four Core Content standards were too difficult for middle school students.

Resolution: One content standard was eliminated from the middle school content based on the feedback and research (*Science for All Americans* and *Atlas of Science Literacy*). The other three Core Content standards were clarified by adjusting the depth of knowledge expected at the middle school level consistent with the feedback from the teacher advisory groups. Teachers also recommended more focus on these concepts as part of professional development.

Practical Living and Vocational Studies

Issue – Separate content areas of Health and Physical Education from Consumerism and Vocational Studies: Although there were no major issues in Practical Living and Vocational Studies, feedback supported separating the assessment of Health and Physical Education from Consumerism and Vocational Studies. The feedback was to assess Health and Physical Education at 10th grade and move Consumerism and Vocational Studies to 11th grade. Students typically take Health and Physical Education during 9th or 10th grade so it would be appropriate to assess this content in 10th grade. Due to the maturity levels of students, the Core Content standards for Consumerism and Vocational Studies is more appropriate for 11th grade. The content is more practical for making real world applications at this age (i.e., relating to a job, buying a car, purchasing insurance, planning for college). The responses to the online survey supported this change.

Resolution: As the Kentucky Board of Education decides on which content areas are assessed at specific grades, consider the recommendation regarding separating these content areas and moving the grade levels for assessment.

Issue – Alignment of the *Program of Studies* and the *Core Content for Assessment*: Some Physical Education content standards were embedded in Health. The *Program of Studies* needs to be revised to better align and correlate with the *Core Content for Assessment* for Health and Physical Education.

Resolution: In the future when the *Program of Studies* is revised, clarify the content standards to make sure Physical Education, Health, and Consumerism are separated and included in appropriate contexts and content areas. In the revised *Core Content for Assessment* selected physical education content standards were moved from Health to Physical Education. Teacher work groups recommended this change.

Issue – Omission of content for financial literacy in the *Program of Studies*: Financial literacy is not in the current *Program of Studies*. Research supports inclusion of financial literacy in the curriculum (e.g., managing income, expenditures and various types of savings, using technology in the financial arena, making decisions in regard to finances, and using the economic way of thinking).

Resolution: Financial literacy is included in the revised *Core Content for Assessment*. In the future when the *Program of Studies* is revised, clarify the content standards to include financial literacy.

Arts and Humanities

Issue – Breadth of content: The Arts and Humanities content was too broad and included more content than could be covered in depth at any grade level.

Resolution: Based on recommendations from teacher review, teams, online field review, suggestions from the Content Advisory Committee for Arts and Humanities and review of national standards and research, the content for Arts and Humanities was reduced. Broad expectations were narrowed to provide more guidance to teachers for classroom instruction. The content was spread across grade levels Primary through High School rather than concentrated at 5th, 8th and 11th grades.

Issue - Rigor of Music *Core Content for Assessment*: The Music *Core Content for Assessment* was too rigorous for the general student.

Resolution: The Music content standards were adjusted to be more appropriate at each grade level and targeted better for the general student. Teacher work teams, the responses to the online survey, and the review of National Assessment for Educational Progress Standards supported these adjustments.

Issue - Breadth of historical and cultural content and alignment with social studies curriculum: Historical and cultural content for Arts and Humanities was too broad and unrelated within the arts and with Social Studies curriculum sequence. Teachers lacked guidance on what to teach about cultures or historical context and on how to connect cultural and historical context across the curriculum.

Resolution: The cultural/historical content was aligned across all of the arts so each art form is addressing the same cultural/historical content at the same grade level. The revised Arts and Humanities *Core Content for Assessment* further defines significant information for cultures and historical context. The content was aligned with the Social Studies *Core Content for Assessment* so that there is a curriculum sequence that corresponds between the arts and social studies. A cross-reference chart was developed for instructional purposes to address the alignment and topics. These changes were supported by recommendations from the teacher work teams, the responses to the online survey, suggestions from the Content Advisory Committee for Arts and Humanities, and cross content work with social studies.

Issue – Arts and Humanities Core Content standards for literature did not match the Arts and Humanities *Program of Studies*: Although cross-referenced, the content standards for literature are found in the Language Arts section for Reading in the *Program of Studies* rather than under the Arts and Humanities *Program of Studies* content standards.

Resolution: Core Content standards for literature are addressed in the Reading *Core Content for Assessment*. This adjustment was supported by review of the Reading *Program of Studies* standards and recommendations from the Arts Task Force.